



McChord Engineering Associates, Inc.

Civil Engineers and Land Planners

1 Grumman Hill Road
Wilton, CT 06897
(203) 834-0569

March 11, 2021

Environmental Protection Commission
Planning & Zoning Commission
Darien Town Hall
2 Renshaw Road
Darien, CT 06820

Re: Engineering Summary
Proposed Site Development
40 Morley Lane, Darien, CT
Map 63, Lot 57

Dear Commissioners:

This office has been commissioned by homeowners Christina and Donato Pacione to prepare an application to EPC and P&Z for the proposed site development at 40 Morley Lane. The project is regulated by the EPC because it is within the 50' upland review area of the inland wetlands on the site. The project is regulated by P&Z due to the amount of earthwork associated with the new development. The following is a general description of the existing property, proposed development, and regulated activity.

The property totals 1.326-acres and is located within Darien's "R-1" zone. It is currently developed with a single family residence, driveway, deck, lawn and landscaped areas. The eastern portion of the property is wooded and contains a large inland wetlands area. Topography on the site consists of gradual slopes between the road and the house. The property then slopes down to the back yard, where there is a narrow valley between the house and a ledge outcropping. The property then slopes steeply from the ledge outcropping to the edge of the wetlands. The entire property drains to the wetlands.

The proposed site development includes a small addition and patio at the back of the house. A pool and patio are proposed just southeast of the house. Filling will take place in the back yard to soften the grades within the existing valley in order to create more usable yard space. A code complying septic system is shown to comply with section 19-13-B100a of the CT Public Health Code, but this septic system is not intended to be built at this time. Details of the site development are shown on the "B100a Septic System/Site Development Plan" prepared by this office.

An underground stormwater detention system is proposed to mitigate increased runoff from the proposed development. The detention system is located in the back yard and will capture runoff from the proposed pool patio and the rear roof leaders from the house. The system is designed to promote infiltration into the underlying soil. It is sized to treat the water quality volume from the captured

impervious surfaces and to reduce the peak flows from the site per the requirements of the Darien Stormwater Management and Drainage Manual.

The majority of the proposed development is outside of the 50' upland review area of the inland wetlands. The eastern end of the proposed pool is proposed 37' from the inland wetlands. The total disturbance within the upland review area is approximately 1,400 square feet.

Filling in the back yard will total approximately 380 cubic yards. Some of this material will come from excavation from the pool and house addition. The remaining fill will be imported to the site and will be clean fill, free of any construction debris. The extent of the proposed filling is limited to the existing valley in the back yard. No filling is proposed on the steep slopes, which will remain wooded. The east end of the proposed pool will extend above ground, helping to minimize the earthwork adjacent to the steep slopes.

The majority of the trees on the site will be preserved. Temporary fencing is proposed to protect the large trees closest to the construction activity. Three large trees will need to be removed for the pool construction, one of which is within the regulated area. New plantings are proposed on the east end of the pool to offset this loss of vegetation and to help improve the buffer to the inland wetlands.

Construction access is proposed through the front yard, just south of the house. The existing driveway cannot be used since it does not provide a means to access the back yard. The existing septic system in the front yard will be protected during construction. The majority of work will be staged in the back yard, close to the construction activity.

Soil and erosion controls, including silt fence and hay bales, will be employed to filter site runoff during construction. These controls will remain in place until the site is stabilized and permanent vegetative cover has been established. It is the opinion of this office that the proposed site development will have no adverse impacts to the inland wetlands or adjoining property owners.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Thomas Nelson', is written over a horizontal line.

Thomas Nelson, P.E.
Project Manager

TSN:tsn